

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A mobile communication terminal for supporting a network mobile game by using electronic compass function, the mobile game being a game electronically performed by or at a mobile communication terminal, comprising:

a program memory unit storing a compiler for performing compilation to execute the mobile game and a wireless Internet browser for gaining access to a wireless Internet;

a parameter storage unit for storing therein various parameters for use in performing a data communication;

a subscriber identity module (SIM) for storing therein a mobile identification number (MIN), an electric serial number (ESN), a personal security key and various data required to operate the mobile communication terminal;

a key input unit including at least one key button for inputting commands for selecting, starting, playing and stopping the mobile game;

an electronic compass module incorporating a magnetic sensor for outputting a sensor output signal proportional to magnitude of the external geomagnetic field which varies with an upward, a downward, a leftward and a rightward motion of the mobile communication terminal, for outputting a horizontal or a vertical rotation angle value;

a microprocessor for controlling the mobile game based on the key values inputted from the key input unit, wherein the microprocessor is controlled to transmit the

horizontal or the vertical rotation angle value received from the electronic compass module while conducting the mobile game to a specific wireless Internet game server via the wireless Internet as a data value for controlling movement of a user-controlled character; and

a liquid crystal display (LCD) unit for displaying the mobile game under the control of the microprocessor,

wherein the electronic compass module includes:

an X-axis magnetic sensor and a Y-axis magnetic sensor for generating an X-axis magnetic sensor output signal and a Y-axis magnetic sensor output signal depending on variations in an X-axis and a Y-axis component of the external geomagnetic field, respectively;

an analog/digital converter (ADC) for receiving the X-axis and/or the Y-axis magnetic sensor signal and converting received signal into a digital signal; and

a compensation processor for receiving the digital signal from the ADC, determining whether or not a compensation of the digital signal is required, performing the compensation of the digital signal if the compensation is determined to be required, and transferring compensated digital signal to the microprocessor,

wherein the compensation processor determines that the compensation is required when the received digital signal has a value greater than a predetermined threshold value.

2. (Original) The mobile communication terminal of claim 1, wherein the parameter storage unit stores therein parameters to be used in synchronous,

asynchronous and fourth-generation communication systems defined by 3GPP (3rd generation partnership project), 3GPP2, ITU (international communication union), OHG (operator harmonization group).

3. (Original) The mobile communication terminal of claim 1, wherein the wireless Internet browser is at least one of a WAP (wireless application protocol) browser coded in WML (wireless markup language), a Mobile Explorer coded in m-HTML (Microsoft-HTML) and a Compact Netfront coded in c-HTML (Compact-HTML).

4. (Original) The mobile communication terminal of claim 1, wherein, if a network mobile game is selected from the key input unit, the mobile communication terminal drives the wireless Internet browser to gain access to the wireless Internet game server via the wireless Internet and executes the network mobile game.

5. (Canceled)

6. (Currently Amended) The mobile communication terminal of claim ~~[[5]]~~ 1, wherein the electronic compass module further includes a constant DC voltage circuit for supplying a constant DC voltage to the X-axis magnetic sensor and the Y-axis magnetic sensor.

7. (Currently Amended) The mobile communication terminal of claim [[5]] 1, wherein the compensation processor incorporates therein a compensation algorithm for use in performing the compensation.

8. (Currently Amended) The mobile communication terminal of claim [[5]] 1, wherein the compensation processor determines that the compensation is required when the received digital signal has a negative value or a value of more than or equal to 360°.

9. (Canceled)

10. (Original) The mobile communication terminal of claim 1, wherein the user-controlled character is rotated leftward and/or rightward about a point on a vertical axis of the user-controlled character in response to the movement of the mobile communication terminal.

11. (Original) The mobile communication terminal of claim 1, wherein the user-controlled character is rotated upward and/or downward about a point on a horizontal axis of the user-controlled character in response to the movement of the mobile communication terminal.

12. (Original) The mobile communication terminal of claim 1, wherein the electronic compass module is embedded in a body portion of the mobile communication terminal in an equilibrium state with the body of the mobile communication terminal.

13. (Original) The mobile communication terminal of claim 1, further comprising a speaker for outputting a sound created in the mobile game under play.

14. (Original) The mobile communication terminal of claim 1, wherein the mobile communication terminal is selected a group including a PDA (personal digital assistant), a cellular phone, a hand-held PC, a GSM (global system for mobile) phone, a W-CDMA (wideband CDMA) phone, a CDMA-2000 phone and an MBS (mobile broadband system) phone.

15-23. (Canceled)

24. (New) A mobile communication terminal for supporting a network mobile game by using electronic compass function, the mobile game being a game electronically performed by or at a mobile communication terminal, comprising:

a program memory unit storing a compiler for performing compilation to execute the mobile game and a wireless Internet browser for gaining access to a wireless Internet;

a parameter storage unit for storing therein various parameters for use in performing a data communication;

a key input unit including at least one key button for inputting commands for selecting, starting, playing and stopping the mobile game;

an electronic compass module incorporating a magnetic sensor for outputting a sensor output signal proportional to a change in magnitude of the external geomagnetic field;

a microprocessor for controlling the mobile game based on key values inputted from the key input unit;

a display unit for displaying the mobile game under the control of the microprocessor;

an analog/digital converter (ADC) for receiving the sensor output signal and converting the received sensor output signal into a digital signal representing a rotation angle of the mobile communication terminal; and

a compensation processor for receiving the digital signal from the ADC, determining whether or not a compensation of the digital signal is required, performing the compensation of the digital signal if the compensation is determined to be required, and transferring the compensated digital signal to the microprocessor,

wherein the compensation processor determines that the compensation is required when the received digital signal has a value out of a predetermined range.

25. (New) The mobile communication terminal of claim 24, wherein a user-controlled character of the network mobile game is displayed on the display unit and changes a moving direction at an angle that is at a predetermined ratio of a value of the digital signal.

26. (New) The mobile communication terminal of claim 24, wherein a user-controlled character of the network mobile game is displayed on the display unit and changes a moving direction at an angle that is at a predetermined ratio of a value of the compensated digital signal.